

November 12, 2004

F/PIC:JMO:FLF  
CRNC0401-3.JMO

## CRUISE REPORT

**VESSEL:** F/V *Katy Mary* and F/V *Marie M*

**CRUISE PERIOD:** 30 August-1 October 2004

**AREA OF OPERATION:** Necker Island and Maro Reef (Fig. 1)

**TYPE OF OPERATION:** Personnel from the Joint Institute for Marine and Atmospheric Research (JIMAR) conducted lobster trapping and tagging in the waters around Necker Island and Maro Reef.

### *Katy Mary* ITINERARY:

30 August Start of cruise. On board *Katy Mary*: Robert Marshall, Jean Higgins, and Nichole Teeple. Departed Pier 35, Honolulu, Oahu at 1000; transited Necker Island.

1 September Vessel recalled, transited to Port Allen, Kauai.

2 September Vessel arrived at Port Allen, Kauai, 1400.

3 September Departed Port Allen at 0800; transited to Necker Island.

4 September Arrived at Necker Island. Commenced lobster trapping and tagging.

5-26 September Continued lobster trapping and tagging.

27 September Hauled lobster traps and departed Necker Island; transited to Oahu.

30 September Arrived Pier 35, Honolulu, Oahu. End of cruise.

### *Marie M* ITINERARY:

1 September Start of cruise. On board Joseph O'Malley, Adam Bailey, and Patrick

Sullivan. Departed Pier 36, Honolulu, Oahu at 1000; transited to Maro Reef.

- 1 September      Vessel recalled. Arrived Pier 35, Honolulu, Oahu, 1100.
- 3 September      Departed Pier 36, Honolulu, Oahu, 1000; transited to Maro Reef.
- 8 September      Arrived Maro Reef. Commenced lobster trapping and tagging operations.
- 9-26 September   Continued lobster trapping and tagging operations.
- 27 September      Hauled lobster traps and departed Maro Reef; transited to Oahu.
- 1 October          Arrived Pier 36, Honolulu, Oahu, 0900. End of cruise.

### **MISSIONS AND RESULTS:**

A. Collect, tag, and release live trap-captured Hawaiian spiny lobster (*Panulirus marginatus*) and scaly slipper lobster (*Scyllarides squammosus*) to provide data necessary for reestimation of key biological and population parameters for the Necker Island lobster stock.

1. Collect data on the abundance and species composition of trap-captured lobster at Necker Island; tag and release *P. marginatus* and *S. squammosus*.

A total of 630 trapping stations were fished with black plastic lobster traps. Each trapping station consisted of a string of 20 traps. Traps, set between 0930 and 1900, were baited with mackerel and allowed to soak overnight. A total of 300 traps were set each night. Approximately 7,048 *P. marginatus* and 1,818 *S. squammosus* were caught, tagged, and released at Necker Island in 6,900 trap hauls. Sex, carapace length, and reproductive information were collected from each lobster caught.

2. Collect data on the abundance and species composition of trap-captured lobster at Maro Reef; tag and release slipper lobster.

A total of 285 trapping stations were fished with black plastic lobster traps. Each trapping station consisted of a string of 20 traps. Traps, set between 0930 and 1900, were baited with mackerel and allowed to soak overnight. A total of 300 traps were set each night. Approximately 5,228 *S. squammosus* and 2,077 *P. marginatus* were caught, tagged, and released at Maro Reef in 5,700 trap hauls. Sex, carapace length, and reproductive information were collected from each lobster caught.

3. Obtain lobster length-frequency data to compare with previous research and commercial fishery data.

Sex, carapace length, and reproductive status were recorded for approximately 9,125 *P. marginatus*, 7,046 *S. squammosus* and an unknown number of *Pararibacus antarcticus* and *Scyllarides haanii*.

4. Conduct video studies of lobster trap fishing.

The lobster trap camera system was not deployed.

5. Collect 100 *S. squammosus* for fecundity and sexual maturity analysis.

A total of 100 *S. squammosus* were collected, labeled, and frozen for sexual maturity analysis.

#### B. Piggyback Projects

1. Collect 1-minute videos of the bottom substrate for NMFS/PIFSC/CRED.

A total of 24 1-minute bottom substrate videos were collected at Necker Island and 21 were collected at Maro Reef.

2. Videotape release cage deployments

A total of 10 release cage deployments were recorded.

3. Collect DNA of white-tip reef shark (*Triaenodon obesus*) for the University of Hawaii (UH), Department of Zoology.

Specimen kits were not provided by UH, therefore, no samples were collected.

#### **SCIENTIFIC PERSONNEL:**

Adam Bailey, Cooperating Scientist, Northwest Observers, Inc.

Jean Higgins, Cooperating Scientist, Joint Institute for Marine and Atmospheric Research (JIMAR), University of Hawaii (UH)

Robert Marshall, Chief Scientist, JIMAR, UH

Joseph O'Malley, Chief Scientist, JIMAR, UH

Patrick Sullivan, Cooperating Scientist, Northwest Observers, Inc.

Nichole Teeple, Cooperating Scientist, JIMAR, UH

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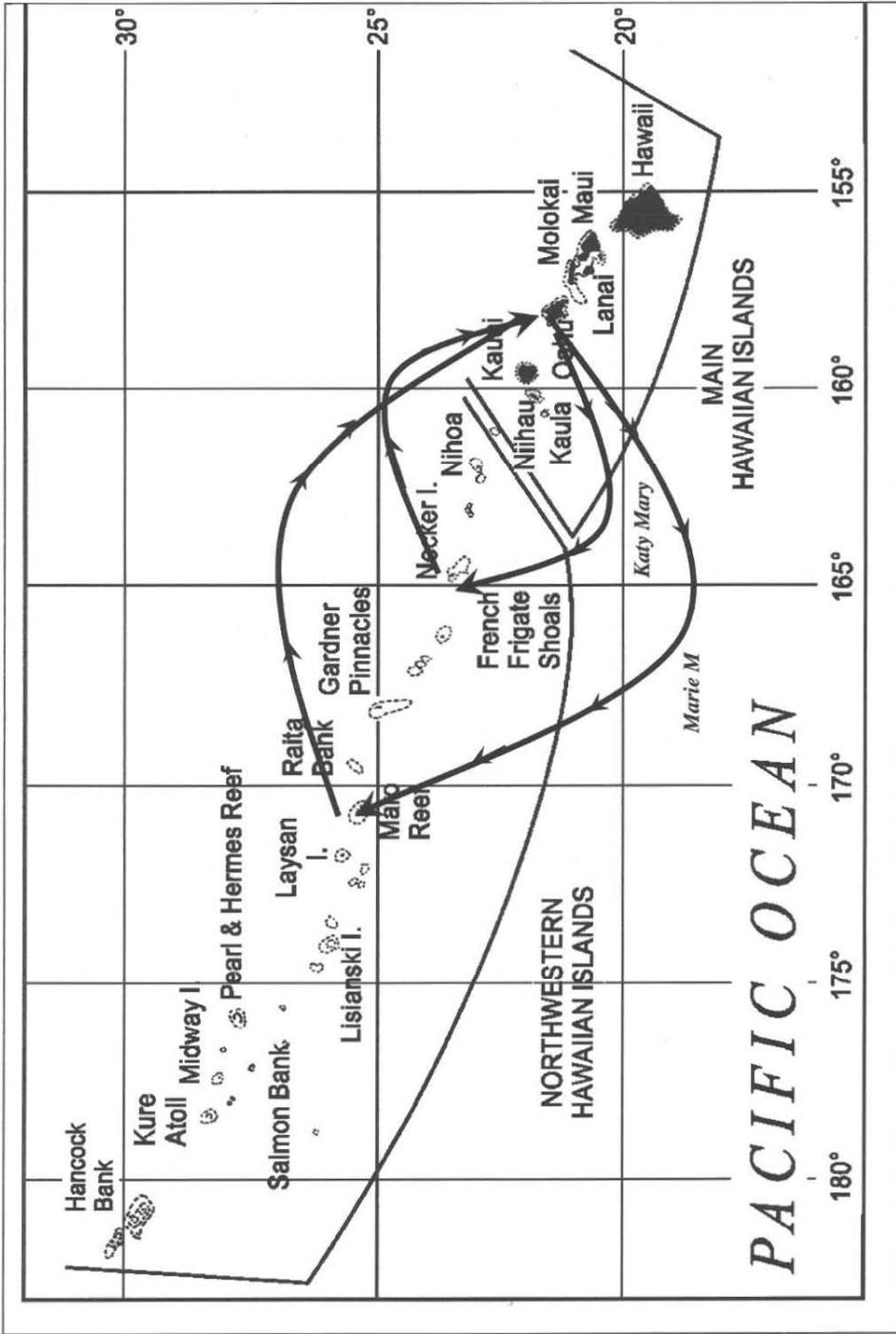


Figure 1.--Track of the NOAA Charter *Katy Mary* cruise NC-04-01, 1-30 September 2004.  
Track of the NOAA Charter *Marie M* cruise NC-04-01, 1-30 September 2004.